



Attorney Docket No.: A0734.70001US00

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**


Applicant: Sung-Hee Do et al.  
Serial No: 09/731,678  
Confirmation No: 9300  
Filed: December 6, 2000  
For: METHOD AND APPARATUS FOR PRODUCING  
SOFTWARE

Examiner: Tuan A. Vu  
Art Unit: 2124

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on July 14, 2006.

  
Signature

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION OF SANG-GOOK KIM UNDER 37 C.F.R. §1.132**

I, Sang-Gook Kim, attest that:

1. I am currently employed as a professor in the Department of Mechanical Engineering at Massachusetts Institute of Technology (MIT), where I have worked for approximately six years. I received a Bachelor's degree in mechanical engineering from Seoul National University in 1978, a Master's degree in production engineering from Korea Advanced Institute of Science and Technology in 1980, and a Ph.D. in mechanical engineering from MIT in 1985. I have significant experience in axiomatic design, including the axiomatic design of software systems.
2. I have known Dr. Nam P. Suh, a co-inventor of the above-identified application and a shareholder of its assignee, Axiomatic Design Software, Inc. as my doctoral thesis advisor and a mentor since 1981. Dr. Suh sponsored my one year sabbatical leave as a visiting professor at

MIT from 1990 to 1991. During this period, research into the axiomatic approach to software design was conducted. After 1991, I worked in areas other than the axiomatic design of software. Since 2001, I have had limited professional contact with Dr. Suh, as we are both full-time professors at MIT.

I also met Dr. Sung-Hee Do, a co-inventor of the above-identified application and an employee and shareholder of its assignee, Axiomatic Design Software, Inc., when I joined MIT as a professor.

Other than what is indicated above, I have no relationship (business or personal) with Axiomatic Design Software, Inc. or its employees, and I have no ownership or other financial interest in this company.

3. I have reviewed the specification and the claims as currently pending of the above-identified application. I have also reviewed the Office Action mailed February 24, 2006.

4. I am a co-author (along with Dr. Nam Suh and Sun-Jae Kim) of an article titled "Design of Software Systems Based On Axiomatic Design," published in 1991 in *International Journal of Robotics and CIM*, Vol. 8, no. 4, pp. 243-255 (hereinafter "Kim"), relied on in the Office Action in rejecting all currently pending claims (i.e., claims 96-113) of the above-identified application under 35 U.S.C. §103(a). Since the first author (Sun-Jae Kim) died in 1990 during the research, I wrote the paper "Kim" as the principal author.


5. I do not believe that the teachings in Kim (the journal article that I co-authored) would have, at the time of filing of the above-identified application, suggested to a person of ordinary skill in the art that a design matrix (of the type disclosed in Kim) may be used to define an object-oriented structure of a software system.

6. I disagree with the assertion on page 4 of the Office Action that the decomposition of functional requirements into a hierarchy would have, at the time of filing of the above-identified application, suggested the idea of object-oriented class inheritance to one of skill in the art. I also disagree with the assertion on Page 4 of the Office Action that the use of a database of functional requirements and design parameters would have suggested to one of ordinary skill in

the art that a design matrix (of the type disclosed in Kim) may be used to define an object-oriented structure of a software system.

7. I disagree with the assertion on page 4 of the Office Action that, based on the teachings of Kim, a person of ordinary skill in the art would have been motivated to “implement the modules associated with each FRs as intended by Kim, so that these modules being stored in existing libraries or legacy database be reuse object-oriented classes or packages.” Rather, I believe that Kim discloses using existing software modules to yield a functional requirement of a design matrix. I do not believe that Kim discloses or suggests implementing a functional requirement as an object-oriented class or package.

8. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued therefrom. Executed on this 10<sup>th</sup> day of July 2006.

  
Sang-Gook Kim